

EXHIBIT 14

FIFTH EDITION

VALUING A BUSINESS

The Analysis and Appraisal
of Closely Held Companies

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Valuing a Business

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Fifth Edition

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Summary

The first step in the valuation process, after carefully defining the assignment, is to gather the data necessary to conduct the assignment. These data can be categorized into three groups:

1. Company-specific data
2. Data about the company's industry and economic environment
3. Data about the subject property's market (market for ownership interests in the subject company)

The company-specific data are gathered from the subject company in written form and during site visits and interviews with people knowledgeable about the company. The gathering of this information is the subject of this and the next chapter.

Industry and economic data often can be provided by the subject company and can also be gathered from publicly available sources. This is the subject of Chapter 5. Data about the market for ownership interests in the subject company include information about changes in ownership of competitors, guideline company transactions, and premiums and discounts that might apply to the subject property. These two categories of information gathering are covered in subsequent chapters in Part III.

The manner and sequence in which the data are gathered are important only to the extent that the process is complete and efficiently carried out. For example, supporting analysts may be collecting industry, economic, rate of return, and guideline transaction information at the same time that the case manager is working directly with the management of the subject company. In any case, it is important to convey a sufficient overview of the company and of the assignment to all of the valuation team members at an early meeting so that all of the analysts will be in a position to recognize important data as they proceed on the project.

If time allows, information gathered should be reviewed and analyzed before the visit to the company so as to focus the interviewing process on the most essential factors that affect the value of the company, thereby minimizing the inconvenience to the company that might be associated with the management interviews, and also maximizing the productivity of the site visit.

Some of the information necessary to conduct the business valuation will need to be obtained through interviews with company management. Sometimes, however, the analyst merely inspects voluminous or highly sensitive documents and only gets copies of the information necessary for the performance of the assignment. In either case, the analyst should be sure that he or she has obtained all the information necessary to complete the assignment.

Generalized Company Information Checklist

Written company-specific information that is generally used in business valuations is presented in Exhibit 4-1. This list is generic. Not every item on the list will be required for every appraisal, and in many circumstances, documents not listed must be reviewed. Working with this list, nevertheless, will assist the analyst in developing a subject company-specific information request list. It will also be helpful to company officials and attorneys in the planning stages of a potential valuation engagement.

Current Liabilities

The company's banking relationship may be an important factor to consider when assessing the company's current liabilities. If the company has a line of credit, what are the costs and terms? Is it under pressure to pay down the line or is there unused credit? How is the line used during the operating cycle? What are the relationships with suppliers, and what are the terms of payment? What are the terms, conditions, and expectations regarding other current liability items?

Capital Structure

If there is long-term debt maturing in the foreseeable future, what are the company's options and intentions about rolling it over? What is the company's debt capacity, and is it assumable by a hypothetical buyer? Are personal guarantees on the company loans necessary? Convertible notes, puts, calls, warrants, or options could mean the current shareholders will be facing dilution. What changes to the capital structure might be anticipated? In virtually every valuation case, the analyst will want to discuss who owns the shares currently outstanding and what the shareholders' relationships are with each other.

Off-Balance Sheet Items

Potential asset items and potential liability claims against the company should be investigated. If the company is involved in pending litigation, what is its substance, and are there any pending judgments that might be favorable or unfavorable? Are leases of real or personal property favorable or unfavorable? The pension liability may be underfunded or overfunded. Is there any potential tax liability or refund? Lack of compliance with environmental protection, OSHA, or other governmental regulations may mean that an unstated liability would be imposed on a hypothetical buyer of the company. Product liability claims or a generous warranty policy could represent a significant unstated liability.

The site visit may also be used to investigate off-balance sheet items that are physically present at the time of the field inspection. Such off-balance sheet items may include inventory, tools and equipment, and so forth.

Profitability and Budgeting

A review of past and current budgets can be a good starting point from which to gain greater insight into the company's profit history and potential. Budgeting is an important area of inquiry. How far into the future does the company budget its operations, and how often is the budget reviewed? In some industries, an evaluation of the company's sales outlook should include an analysis that distinguishes between changes in unit sales and price changes. The most profitable products or product lines, including the outlook for maintaining profitability, should also be considered. An analysis of fixed and variable expenses will help the analyst understand the extent to which increased or decreased volume will affect operating margins. What can be done to make the company more profitable and what are the associated costs?

Insurance

An uninsured catastrophe could wipe out a business. The questions about insurance should investigate the adequacy of the company's coverage for key person life insurance, product and other liability insurance, and casualty insurance, including fire, theft, and business interruption. If no insurance is carried, the analyst should assess adequacy of reserves.

Dividends

The analyst should try to obtain a complete record of past dividend payments. Beyond that, the analyst should assess both the company's dividend-paying capacity and intentions with regard to dividends if dividend-paying capacity exists.

Prior Arm's-Length Transactions or Offers

Verification of the completeness of the list of prior transactions or offers—and the circumstances surrounding them—is a good idea. Overlooking or overemphasizing prior transactions is a common area of controversy in business valuations. What price was paid for the stock? Was it really an arm's-length transaction? Was it a "clean" transaction for the stock or were various strings attached?

If there were one or more offers to buy stock but a transaction was not consummated, the offer may still provide an indication of value. If it was a bona fide, arm's-length offer, it may provide particularly good evidence of value. This is particularly true if the offer was funded (i.e., the financing was already in place to pay for the offer). The analyst should seek anything in writing about such an offer.

Prior transactions of significance may include acquisitions by the company as well as transactions in its own stock, so the analyst should inquire about acquisitions. If the company made a meaningful acquisition, it may be a useful comparative transaction to use in the valuation.

Catch-All Question

If the person performing the fieldwork for a valuation follows this chapter as an outline, the result should be a reasonably comprehensive facility visit and set of interviews. This will be especially true if the person is an experienced interviewer, because many interview subjects will call for more in-depth interrogation than shown here, and personal style and technique alone can uncover critical information. Depending on the analyst's assignment, the ramifications of certain topics may call for a different depth of questioning, beyond the scope of reasonable explanation in a single book, much less in one chapter.

Nevertheless, even the most experienced interviewer may fail to ask just the right questions to elicit responses on every aspect bearing on the valuation. Therefore, somewhere near the end of each interview, the analyst might ask each interviewee a catch-all question. This can be something like: "Is there any

a negative factor fully by a reduction in the economic income projection, and then magnifying the effect by an increase in the discount rate for the negative factor.

Care must be taken to assure that adjustments to the discount rate do not duplicate adjustments to value made elsewhere in the analysis. For instance, an analyst may believe that the shares of a privately held company should offer a higher rate of return than those of a publicly traded company, and may wish to adjust the discount rate accordingly. But it is common practice to adjust for the privately held status of a company by applying a discount for lack of marketability to the marketable value (see Chapter 17). Making both adjustments will lead to double counting of the effects of nonmarketability.

There is no specific model or formula for quantifying the exact effect of all the investment-specific risk factors on the discount rate. This ultimately is based on the analyst's experience and judgment. It is noteworthy that the analysis may lead to the conclusion that the subject company is *less risky* than industry or guideline company averages, in which case the investment-specific risk adjustment may *reduce* the discount rate.

Arbitrage Pricing Theory Factors

There is one major source for arbitrage pricing theory data. Birr Portfolio Analysis, Inc., publishes *BIRR Risks and Returns Analyzer*, a PC-based software tool. The contact information for this source can be found in the bibliography at the end of this chapter.

Rate of Return Allowed to Regulated Companies

Additional cost of capital data are available when estimating the appropriate discount rate for a regulated company.

Public utility commissioners in all 50 states allow regulated utilities to charge rates to their customers that provide what supposedly is a fair rate of return on investment (often called the *rate base*). These allowed rates of return generally are based on the respective commissions' perceptions of the cost of debt capital and the cost of equity capital based on studies by their staffs. Utility commissions' allowed rate of return orders usually also specify an allowed overall rate of return on invested capital, based on their conclusions as to the appropriate capital structure. Multimillions of dollars are involved in these rate-setting decisions, which come about through hard-fought negotiations and hearings that sometimes culminate in lawsuits and rate base decisions rendered in court.

Regulated companies usually are regulated because they have a captive market and are in a monopoly position to supply a needed service; thus, their cost of capital should be considerably lower than that for an average company. Therefore, allowed rates of return for regulated companies can be viewed as a reasonable benchmark for a minimum boundary of the overall cost of capital.

Cost of Capital Yearbook

Starting in 1995, Ibbotson Associates combined into one publication several of the previous data items plus other information relevant to estimating the cost of equity, and also information useful for valuation work. Exhibit 9-14 is an example of the

Exhibit 9-14

STATISTICS FOR SIC CODE 1381

Drilling Oil and Gas Wells

This Industry Comprises 10 Companies

| Industry Description | | Sales (million\$) | | Total Capital (million\$) | | | |
|---|--|---|-----------|---|----------|--|--|
| | | Total | 7,368 | Total | 42,821 | | |
| | | Average | 736.8 | Average | 4,282.1 | | |
| | | Three Largest Companies | | Three Largest Companies | | | |
| | | PRIDE INTERNATIONAL INC | 1,712.2 | DIAMOND OFFSHORE DRILLING INC | 12,528.9 | | |
| | | DIAMOND OFFSHORE DRILLING INC | 1,221.0 | ENSCO INTERNATIONAL INC | 8,391.4 | | |
| | | ENSCO INTERNATIONAL INC | 1,046.9 | PRIDE INTERNATIONAL INC | 6,783.8 | | |
| | | Three Smallest Companies | | Three Smallest Companies | | | |
| | | PIONEER DRILLING CO | 185.2 | PARKER DRILLING CO | 1,380.4 | | |
| | | ATWOOD OCEANICS | 168.5 | PIONEER DRILLING CO | 833.2 | | |
| | | TRI-VALLEY CORP | 4.4 | TRI-VALLEY CORP | 180.0 | | |
| SIC vs. S&P 500 for Last 10 Years (%) | | Number of Companies & Total Capital (billion\$) | | | | | |
| ■ SIC Composite ■ S&P 500 | | S&P Debt Rating | Large Cap | Mid Cap | Low Cap | | |
| | | AAA, AA, A | 1 | 0 | 0 | | |
| | | | 12.5 | 0.0 | 0.0 | | |
| | | BBB | 1 | 0 | 0 | | |
| | | | 8.4 | 0.0 | 0.0 | | |
| | | BB, B, CCC, CC, D | 0 | 1 | 2 | | |
| | | | 0.0 | 6.8 | 3.1 | | |
| | | Not Rated | 0 | 2 | 2 | | |
| | | | 0.0 | 9.4 | 2.5 | | |
| | | Totals | 2 | 3 | 4 | | |
| | | | 20.9 | 16.1 | 5.6 | | |
| | | | | 0.2 | 42.8 | | |
| Annualized Statistics for Last 10 Years (%) | | Compound Annual Equity Return (%) | | Sales, Income & Market Capitalization (billion\$) | | | |
| Avg Return | | 5 Years | | Operating | Net | | |
| S&P 500 | | 19.98 | | Sales | Income | | |
| SIC Composite | | 32.29 | | Income | Capital | | |
| Std Deviation | | 10 Years | | Capital | Debt | | |
| S&P 500 | | 17.20 | | Current Yr. | 38.7 | | |
| SIC Composite | | 59.86 | | Last Yr. | 4.2 | | |
| Large Composite | | 58.58 | | 2 Yrs. Ago | 25.4 | | |
| Small Composite | | 77.69 | | 3 Yrs. Ago | 5.0 | | |
| | | SIC Composite | | 4 Yrs. Ago | 4.7 | | |
| | | Large Composite | | | 4.4 | | |
| | | Small Composite | | | 3.9 | | |
| Growth Over Last 5 Years (%) | | Capital Structure Ratios (%) | | | | | |
| Net | | Debt/Total Capital | | Debt/MV Equity | | | |
| Sales | | Latest 5-Year Avg | | Latest 5-Year Avg | | | |
| Median | | 5.66 | | 6.00 | | | |
| SIC Composite | | 16.84 | | 20.38 | | | |
| Large Composite | | 5.88 | | 6.25 | | | |
| Small Composite | | 18.06 | | 22.04 | | | |
| | | SIC Composite | | 21.73 | | | |
| | | Large Composite | | 18.16 | | | |
| | | Small Composite | | 32.63 | | | |
| | | 30.27 | | 4.00 | | | |
| Margins (%) | | Distribution of Sales & Total Capital (million\$) | | | | | |
| Operating Margin | | Net Margin | | Distribution of Sales | | | |
| Latest | | Latest 5-Year Avg | | Latest 5-Year Avg | | | |
| Median | | 15.69 | | 925.7 | | | |
| SIC Composite | | 8.42 | | 8805.1 | | | |
| Large Composite | | 46.42 | | 5,134.6 | | | |
| Small Composite | | 42.13 | | 75th Percentile | | | |
| | | 8.39 | | 1,270.1 | | | |
| | | 3.50 | | 925.7 | | | |
| | | 7.82 | | 794.0 | | | |
| | | 3.07 | | 6467.3 | | | |
| | | 14.88 | | 748.9 | | | |
| | | 16.89 | | 539.3 | | | |
| | | 21.73 | | 2777.9 | | | |
| | | 14.89 | | 271.9 | | | |
| | | 18.16 | | 219.6 | | | |
| | | 32.63 | | 1447.7 | | | |
| | | 30.27 | | 822.0 | | | |
| | | 4.00 | | 152.1 | | | |
| | | 8.87 | | 88.7 | | | |
| | | 767.9 | | 767.9 | | | |
| | | 274.7 | | | | | |
| Equity Valuation Ratios (Multiples) | | Dividend Yield (% of Price) | | | | | |
| Price/Earnings | | Market/Book | | Price/Sales | | | |
| Latest | | Latest 5-Year Avg | | Latest 5-Year Avg | | | |
| Median | | 3.87 | | 3.50 | | | |
| SIC Composite | | 2.02 | | 7.82 | | | |
| Large Composite | | 4.66 | | 3.07 | | | |
| Small Composite | | 2.98 | | 2.42 | | | |
| | | 54.79 | | 2.61 | | | |
| | | NMF | | 2.95 | | | |
| | | 14.26 | | 2.53 | | | |
| | | 10.07 | | 2.44 | | | |
| | | 0.00 | | 2.31 | | | |
| | | 0.97 | | 2.15 | | | |
| | | 0.70 | | 2.13 | | | |
| Growth Rates (%) | | Dividend Yield (% of Price) | | | | | |
| Cost of Equity Capital (%) | | Price/Cash Flow | | | | | |
| Analysts' Estimate | | Latest | | Latest | | | |
| CAPM | | 5.75 | | 5.75 | | | |
| CAPM + Size Prem | | 3.52 | | 3.52 | | | |
| Fama-French | | 1.90 | | 1.90 | | | |
| 1-Stage | | 49.19 | | 49.19 | | | |
| 3-Stage | | 18.50 | | 18.50 | | | |
| CAPM + Size Prem | | 11.34 | | 11.34 | | | |
| Fama-French | | 12.27 | | 12.27 | | | |
| 1-Stage | | 14.10 | | 14.10 | | | |
| 3-Stage | | 45.40 | | 45.40 | | | |
| CAPM + Size Prem | | 11.44 | | 11.44 | | | |
| Fama-French | | 14.28 | | 14.28 | | | |
| 1-Stage | | 44.62 | | 44.62 | | | |
| 3-Stage | | 16.57 | | 16.57 | | | |
| CAPM + Size Prem | | 12.39 | | 12.39 | | | |
| Fama-French | | 14.13 | | 14.13 | | | |
| 1-Stage | | 16.23 | | 16.23 | | | |
| 3-Stage | | 47.19 | | 47.19 | | | |
| CAPM + Size Prem | | 12.18 | | 12.18 | | | |
| Fama-French | | 1.35 | | 1.35 | | | |
| 1-Stage | | 1.07 | | 1.07 | | | |
| 3-Stage | | 1.04 | | 1.04 | | | |

SOURCE: Ibbotson Associates, *Cost of Capital 2006 Yearbook*, data through March 2006.

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information offered in the *Cost of Capital Yearbook* for each of over 350 SIC code groups (see the bibliography at the end of this chapter).

This is a convenient and potentially powerful compilation of data for use in valuation work. We caution readers who use it, however, to study the definitions of all data items carefully before using the data in a valuation analysis. Some definitions are not completely implied by the short titles describing the data points in the tables. Other definitions are not what we may ideally desire, usually because of limitations on the availability of data. The definitions *are* explained in detail. Used carefully, this can be a very useful reference source for valuation analysis.

Discounting Economic Income Available to Overall Capital

Until now in this chapter, we have focused on discounting economic income that is available to common equity holders. In some situations (which will be described elsewhere in this book), it is desirable to value more than just the common equity—often all the equity and all the interest-bearing debt [sometimes referred to as the *entire capital structure*, the *value of the company*, the *enterprise value*, or *market value of invested capital* (MVIC)].

In these instances, the projected cash flow (or other economic income) must include that which is available to *all* the components of the capital structure being valued. The discount rate must be the weighted average of the costs of each of the components of the capital structure, *with the weighted average being based on the market value of each capital component*. This is called the *weighted-average cost of capital* (WACC). In other words, the cost of a company's overall capital is the weighted average of the costs of all of the financing sources in its capital structure.

Defining the Capital Structure

When people refer to “the value of the company” (as opposed to just the value of the equity), they usually mean the value of the company’s capital structure. However, this still may leave ambiguity concerning exactly what is included in the “capital structure.”

Treatment of Interest-Bearing Debt. The most commonly used conceptual definition of *capital structure* is all equity and all long-term debt (including current maturities of long-term debt). However, to value the capital structure defined in this way using the discounted economic income method, it is necessary to include the interest on the long-term debt in the income being discounted and to treat other interest (such as on a bank operating line of credit) as an expense. If getting the necessary information to separate the two elements of interest is not practical, a commonly used solution to the problem is to define the capital structure to include all interest-bearing debt. Interest-bearing debt may be defined to include the permanent portion of interest-bearing current liabilities. This would be the case if, for example, 90-day notes payable (otherwise classified as a current liability) are used as a permanent source of capital for the subject company. Using all interest-bearing debt eliminates a judgment call by the analyst as to the appropriate levels of long-term versus short-term debt.

Treatment of Non-Interest-Bearing Items. Another issue in some cases is whether or not to include certain non-interest-bearing long-term liabilities in the capital structure. This may include, for example, such items as deferred taxes and pension liabilities. If any such items are included, some portion of the capital structure will have zero cost of capital.

Conceptually, the most commonly accepted answer is that these items should be included if it is expected that they will be paid and excluded if payment is not expected. This, then, requires a judgment call. The analyst should also keep in mind that weightings of the components of the capital structure for the purpose of estimating a WACC are at *market value*. Therefore, if non-interest-bearing liabilities are to be included, an estimate of when they will be paid is required so that their face value can be discounted to a present market value to determine their weight. As a practical matter, non-interest-bearing liabilities usually are not included in calculations of a WACC, but there are times when they are important enough to consider.

In any case, when discounting the economic income available to the company, it is important to specify what is assumed to be included in the capital structure.

Weighted-Average Cost of Capital Formula

The basic formula for computing the after-tax WACC is as follows:

Formula 9-11

$$WACC = (k_e \times W_e) + [k_d (1-t) \times W_d]$$

where:

| | | |
|--------|---|---|
| $WACC$ | = | Weighted average cost of capital |
| k_e | = | Company's cost of common equity capital |
| k_d | = | Company's cost of debt capital |
| W_e | = | Percentage of equity capital in the capital structure |
| W_d | = | Percentage of debt capital in the capital structure |
| t | = | Company's effective income tax rate |

Assume the following:

| | |
|--|------|
| Cost of equity capital: | 0.25 |
| Cost of debt capital: | 0.10 |
| Proportion of equity in capital structure: | 0.70 |
| Proportion of debt in capital structure: | 0.30 |
| Income tax rate: | 0.40 |

These data would be substituted into this formula as follows:

$$\begin{aligned}
 & (0.25 \times 0.70) + [0.10(1-0.40) \times 0.30] \\
 & = 0.175 + (0.06 \times 0.30) \\
 & = 0.175 + 0.018 \\
 & = \underline{\underline{0.193}}
 \end{aligned}$$

So, the overall cost of capital in this example is 19.3 percent.

In many cases, there is a more complex capital structure, perhaps with preferred stock and more than one class of debt. This formula would simply be expanded to include a term for each class of capital.

Should an Actual or a Hypothetical Capital Structure Be Used?

If the company is to be valued *as it is* (under the strict fair market value standard, assuming that the capital structure will remain intact), then the amount of debt in the company's actual capital structure should be used. Certainly, if a minority ownership interest is to be valued directly by a procedure involving (first) valuing overall capital and (then) subtracting debt, using the actual amount of debt in the company's capital structure would seem appropriate. This is because it would be beyond the power of a noncontrolling stockholder to change the capital structure. However, if a minority interest is being valued by first valuing 100 percent of the company and then subtracting lack of control discounts, it may be more appropriate to use a hypothetical capital structure. This is because one of the things you might consider in selecting the amount of lack of control discount to apply might be the inability to affect the capital structure—therefore, if the analyst was to reflect a disadvantaged capital structure in the WACC *and* include it in the lack of control discount, it would be double-counted.

The analyst should keep in mind that the weightings in the capital structure are at market value. Therefore, if there is a fixed amount of debt and the WACC is used to estimate the market value of equity, computations may need to be iterated with different assumed capital structures until the estimated market value of equity results in the assumed market value capital structure weights.

Regardless of the rationale behind the choice of capital structure, it should be kept in mind that the weighted-average cost of capital assumes a ratio of debt to equity that is roughly consistent with the company's financial leverage over the long term. In other words, the current leverage is less important than the desired future leverage of the company. It is seldom the case, for instance, that a company wishes to sustain a proportion of debt greater than that of equity in its capital structure (with the exception of a few industries such as public utilities). Companies with very high leverage generally achieve such status *involuntarily*. For instance, a company may have lost equity value as a result of bad investments or deteriorating market conditions, leading to a high debt-to-equity ratio. Moreover, companies that *voluntarily* take on high leverage often hope to pay down their debt aggressively out of future operating cash flows. This is commonly the plan in the case of leveraged buyouts.

Financial theory has not yet developed a generally accepted theory for predicting a given company's capital structure. For this reason, analysts commonly look at the average capital structure of guideline companies as a benchmark for a company's normal capital structure.

In cases in which it is necessary to use an actual leverage that is unusually high or low relative to the normal long-term leverage of the company, the analyst should consider one of various approaches to value that incorporate changing leverage over time. The simplest of these approaches is the "adjusted present value" approach. This approach discounts unlevered cash flows using a debt-free cost of capital (an "unlevered equity" rate of return), adds the value of the tax savings created by the interest tax shield on debt financing, and may add other adjustments to value for "financial side effects" such as expected costs of financial distress in the case of a highly leveraged company).⁴⁰

⁴⁰ For the adjusted present value method, see, for example, T. Luehrman, "Using APV: A Better Tool for Valuing Operations," *Harvard Business Review*, Vol. 75, 1997, pp. 145–154; S. Kaplan and R. Ruback, "The Valuation of Cash Flow Forecast: An Empirical Analysis," *Journal of Finance*, Vol. 50, 1995, pp. 1059–1093; and R. A. Brealey and S. C. Myers, *Principles of Corporate Finance*, 8th ed. (New York: McGraw-Hill, 2006).

If a controlling ownership interest is to be valued and the standard of value is fair market value, an argument can be made that an industry-average capital structure should be used. This is because a control buyer would have the power to change the capital structure and the industry average could represent the most likely result. However, in such a case, it would be important to understand how the industry-average capital structure is derived and whether or not it is reasonable to expect the subject company to achieve it, given (1) the current conditions of the company itself and (2) the current financial market conditions. Alternatively, it may be appropriate to consider a capital structure that the company could achieve under an asset-based loan scenario. By availing itself of extra funding, the company could take advantage of growth opportunities that the current ownership is simply not taking advantage of. If a controlling ownership interest is to be valued under the standard of investment value, then the buyer's or owner's capital structure could be used.

Specific Projection Period plus a Terminal Value

So far, we have presented the basic discounted economic income model, in which specific projections of economic income are made over the life of the investment. However, as a practical matter, there are very few investments for which reliable projections can be made over the entire life of the investment. Variations of the model reflect this limitation.

The most common multistage variation of the discounted economic income model is a two-stage model that projects economic income for a finite number of periods, usually one business cycle of somewhere between 3 and 10 years, and then assumes a *terminal value* at the end of the discrete projection period. Note that the only reason one would use a discounted cash flow method as opposed to a capitalized cash flow model is that the subject company predicts a period of variability in its earnings stream for some period of time into the future. The appropriate length of the forecast period should be until that variability stops; at the point in time that the company expects normalized or level growth, the terminal value is calculated. If no variability is expected, then there is no point in forecasting interim years' cash flow, as there are no variable interim years. In effect, the terminal year, next year, is the only year from which value is ever calculated, and growth is built into the rate of return instead of the cash flow. However, it is important to note that the capitalization model implies a steady rate of growth in perpetuity.

This terminal value is sometimes also called the *residual value*, the *reversionary value*, or the *future value*. The formula for this model can be generalized as follows:

Formula 9-12

$$PV = \frac{E_1}{(1+k)} + \frac{E_2}{(1+k)^2} + \dots + \frac{E_n}{(1+k)^n} + \frac{FV}{(1+k)^n}$$

where:

$E_1 \dots E_n$ = Expected amounts of economic income (often net cash flow) in each of periods E_1 through E_n

Overview of the Guideline Publicly Traded Company Method

The purpose of compiling guideline company statistics is to develop valuation multiples based on prices at which stocks of similar companies are trading in a public market. The valuation multiples thus developed will be applied to the subject company's fundamental data and correlated to reach an estimate of value for the subject company or its shares or other interests.

A "valuation multiple" is usually a multiple computed by dividing the price of the guideline company's stock as of the valuation date by some relevant economic variable observed or calculated from the guideline company's financial statements. Some variables, such as projections of next year's earnings, may be estimated by security analysts. The reciprocal of the pricing multiple is the capitalization rate for that variable.

Income statement variables often used to develop pricing measures from guideline companies are the following:

- Net sales
- Gross cash flow (net income plus noncash charges)
- Gross cash flow before taxes (earnings before depreciation, other noncash charges, and taxes, sometimes called EBDT)
- Net cash flow (gross cash flow adjusted for capital expenditures, changes in working capital, and sometimes changes in debt)
- Net income before taxes
- Net income after taxes
- Dividends or dividend-paying capacity

In addition to business valuation multiples using only the value of the common stock to develop the pricing multiple, some measures address the value of *all* the invested capital. In this case, the numerator for the valuation multiple is often called *market value of invested capital* (MVIC). This measure is also sometimes called *adjusted market value of capital structure*, *aggregate market value of capital structure*, or *enterprise value*. This measure includes the market value of all classes of stock and all interest-bearing debt. Many analysts deduct cash and marketable securities in situations where they are analyzing the performance of operating assets. The denominator used to compute the pricing multiples should include the returns available to all classes of capital reflected in the numerator—for example, preferred dividends and interest.

Income statement variables often used to develop business valuation multiples for MVIC are:

- Revenues
- Earnings before interest and taxes (EBIT)
- Earnings before interest, taxes, depreciation, and amortization (EBITDA)
- Net cash flow available to invested capital
- Revenues

The above variables usually are computed on an operating basis, with nonoperating items treated separately. Any of the above income variables may be measured for any or all of a variety of time periods to create the denominator for a valuation multiple. The typical time periods used are:

- Latest 12 months (LTM)
- Latest fiscal year
- Estimates for the forthcoming year
- Simple average of some number of past years
- Weighted average of some number of past years

All of the above performance variables and time periods may have various other permutations, depending on availability and relevance of data.

In certain industries, valuation multiples may also be developed based on balance sheet data. Such measures normally are developed by dividing the price as of the valuation date by the balance sheet variables as of a date as close as possible preceding the valuation date for which both guideline company and subject company data are available. Balance sheet variables typically used are:

- Book value
- Tangible book value
- Adjusted book value
- Adjusted tangible book value

As with valuation multiples based on operating data, valuation multiples based on asset values may also be performed on a total capital value basis. In such cases, the market value of the senior equity and interest-bearing liabilities generally is added into both the numerator and the denominator in developing the valuation multiple.

Note that *unlike* operating variables, which are measured over one or more *periods* of time, asset value variables normally are measured only at the latest practical *point* in time.

The actual valuation multiple applied to the subject company may be anywhere within (or sometimes even outside) the range of valuation multiples developed from the market data. Where each valuation multiple should fall will depend on the quantitative and qualitative analysis of the subject company relative to the companies that comprise the market transaction data.

One occasionally sees multiples based on physical measures of the size of the business. We have encountered metrics such as number of customers for Internet service providers and megawatt capacity for electric power generators. Since these are measures of the operating assets of the company, they would be used for invested capital multiples rather than equity multiples. As with all metrics used to develop market multiples, the denominator must be logically related to the ability of the business to provide future benefits to investors. One must be cautious about the use of physical measures because companies with similar physical size or metrics may have very different profitability due to differing market conditions, operating costs, condition of the assets, or any variety of other factors.

When Is the Guideline Publicly Traded Company Method Most Useful?

The initial value derived from the guideline publicly traded company method, before adjustment for shareholder-level factors such as size of the block and

Information about mergers is obtained from disclosure filings, the news media, and business intermediaries (business brokers and investment bankers). When publicly held companies are involved, the participants must submit disclosure documents such as SEC Form 8-K and others known collectively as William's Act reports. The major filings are Forms 14D-1, 13D, and 8-K. Companies attempting to purchase another company in the open market (called a tender offer) submit the Form 14D-1. Individuals purchasing 5 percent or more of a company's stock with the intent to obtain substantial voting control or otherwise influence the management of the company file Form 13D. There are also many other relevant required reports, depending on the transactions, such as 14D-9s, proxy statements, and prospectuses. News stories, including press releases from the participants, are the primary source of information on private transactions. The business media also can provide additional details on mergers involving public companies.

An amazing variety of reporting services, newsletters, and online databases utilize information from disclosure filings, company announcements, the media, and business intermediaries to provide extensive, organized analysis of merger transactions as they unfold. General business indexes and news databases can be useful in conducting merger research, but the following sources provide specific coverage of merger and acquisition activities. As with any secondary sources, errors and inconsistencies occur, so the original source documents are the only guarantees of absolute accuracy.

- *Mergerstat Review*
- *The Merger Yearbook*
- *Mergers & Acquisitions* magazine
- *Buyouts*, published every other week by Securities Data Publishing
- *Mergers & Acquisitions Report*

In addition to traditional print sources, online databases provide a variety of information sources for tracking merger and acquisition-related information.

- *SDC Platinum*
- *Mergerstat/Shannon Pratt's Control Premium Study*

Sources for Middle-Market and Smaller Company Transactions

Practical application of the guideline transaction method for companies valued under \$100 million has been enhanced significantly due to the development of databases covering "middle-market" and smaller company transactions. These databases are less expensive than those devoted to large company acquisitions.

There are at least four databases devoted to middle-market and small company controlling ownership interest transactions:

1. *Pratt's Stats*
2. *Done Deals*
3. *Bizcomps*
4. *IBA Market Database*

The bibliography at the end of the chapter gives contact information for each of these databases.

Exhibit 12–2

Comparison of Private and Public Company Transaction Databases as of June 29, 2007

| | Pratt's Stats®* | BIZCOMPS®* | IBA | Done Deals | Mergerstat®* |
|--|------------------------|-------------------|---------------------|--------------------|------------------|
| Type of transactions | Private companies | Private companies | Private companies | Private and public | Public companies |
| Number of transactions | 9,933 | 9,885 | 30,000 | ~8,000 | 5,590 |
| Since | 1990 | 1993 | ~1980 | | 1998 |
| Median sale price | \$1.3M | \$160K | | | \$128.2M |
| Range of sale prices | \$3K–\$16.6B deal size | \$0–\$35M | most < \$500K revs. | \$1M–\$1B | \$40K–\$116B |
| Median revenues | \$1.3M | \$368K | | | \$96M |
| SIC codes | 704 | 445 | | | 657 |
| Data points on each transaction | 81 | 21 | 8(+) | 21 | 56 |

* Available from BVResources at www.BVMarketData.com.

Exhibit 12–2 presents a side-by-side comparison of the foregoing private company sales databases as of June 29, 2007.

Past Subject Company Transactions

Past transactions involving the subject company may be fruitful subjects to analyze for guidance as to value.

Past Subject Company Changes of Control

If the subject company itself has changed control in the last few years, the transaction may be an excellent source of valuation multiples. The valuation multiples used would generally be the same as those discussed earlier. The valuation multiples indicated by the prior transaction may need some adjustment to reflect internal changes in the company or changes in the industry or market conditions.

Bona Fide Offers

Documentable, arm's-length, bona fide offers to buy or sell may also be useful evidence of value. Funded bona fide offers (i.e., offers for which the financing for the offer is already in place) should be given more weight and more consideration than unfunded bona fide offers. It is usually difficult, however, to obtain adequate documentation or to verify the arm's-length relationship of the potential buyer/seller.

Past Acquisitions by the Subject Company

If the company has made one or more acquisitions in the last several years, such transactions may prove to be excellent sources of valuation multiples. Again, adjustments may be necessary for changes between the dates of the acquisitions and the relevant valuation date.

It may be easy to overlook such acquisitions, because they may not come to light in any of the search procedures normally used to identify merger and acquisition transactions. The subject company may be the *only* source for such data, but typically is a very comprehensive and reliable source. Therefore, if considering using a merger and acquisition method, it often is a good idea to ask whether the company has made any acquisitions.

Formulas or Rules of Thumb

Some industries have rules of thumb (sometimes referred to as industry valuation formulas) about how companies in their industry are valued for transfer of controlling ownership interests. On the one hand, if such rules of thumb are widely disseminated and referenced in the industry, they probably should not be ignored. On the other hand, there usually is no credible evidence of how such rules were developed nor how well they actually comport to actual transaction data.

Rules of thumb usually are quite simplistic. As such, they obscure much important detail. They fail to differentiate either operating characteristics or assets from one company to another. They also fail to differentiate changes in conditions for companies in various industries from one time period to another.

Furthermore, it is common for companies in many industries to sell on terms other than for cash, so the “prices” generated by the rules of thumb often are not cash equivalent values. The terms may vary considerably from one transaction to another, but usually are worth less than cash equivalent value. Rules of thumb, therefore, may tend to overstate a cash equivalent value. Consequently, rules of thumb rarely, if ever, should be used without reference to other, more reliable valuation methods.

In an article targeted primarily to valuations for divorce, and still widely quoted after 20 years, Jay Fishman offers the following summary:

There are no “quick fixes” to the valuation of closely held entities. It is essential to remember that industry formulas or rules of thumb are commonly not market derived representations of actual transactions. Since most industry formulas or rules of thumb are derived from textbooks, trade publications, verbal representations, or other similar sources of information, they are poor substitutes for the Direct Market Comparison Approach.⁶

⁶ Jay E. Fishman, “The Problem with Rules of Thumb in the Valuation of Closely-Held Entities,” *Fair\$hare: The Matrimonial Law Monthly*, December 1984, p. 13.

Control premiums and discounts for lack of control are mirror images of each other. This chapter discusses control premiums, and the following chapter discusses discounts for lack of control. These chapters appear before the chapter on discounts for lack of marketability because the appropriate level of value, i.e., either control or minority marketable, should be established before applying a discount, if any, for lack of marketability.

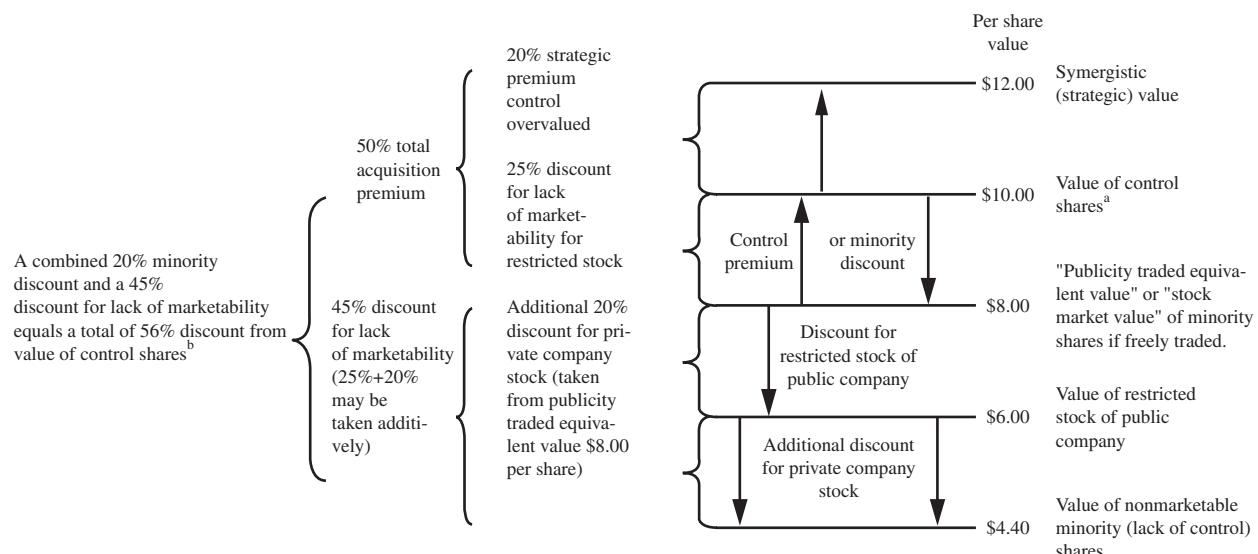
Levels of Value

Exhibit 15–1 is a schematic “levels of value” chart. Note that there is one line on the chart even higher than control value, which is synergistic or strategic value. Note also that the base from which the control premium is measured is, the “publicly-traded equivalent value”—in other words, minority marketable value.

While there is a great deal of empirical evidence available to quantify the discount for lack of marketability, the empirical evidence to quantify the control premium or, conversely, the minority discount is, indeed, scant. The only body of

Exhibit 15–1

“Levels of Value” in Terms of Characteristics of Ownership



Notes:

^a Control shares in a privately held company may also be subject to some discount for lack of marketability, but usually not nearly as much as minority shares.

^b Minority and marketability discounts normally are multiplicative rather than additive. That is, they are taken in sequence:

| | |
|----------|--|
| \$ 10.00 | Control value |
| – 2.00 | Less minority interest discount (.20 × \$10.00) |
| \$ 8.00 | Marketable minority value |
| – 3.60 | Less lack of marketability discount (.45 × \$8.00) |
| \$ 4.40 | Per share value of nonmarketable minority shares |

SOURCE: Jay E. Fishman, Shannon P. Pratt, and J. Clifford Griffith, *Guide to Business Valuations*, 17th ed. (Fort Worth, TX: Practitioners Publishing Co.), Exhibit 8–8. Copies of this *Guide* can be ordered by calling PPC at 800-323-8724 or log onto www.ppc.thomson.com.

empirical evidence that is available is from the public market. Of the several hundred public companies that are taken over each year, most (about 85 percent) are at prices that represent a premium over the previous public trading price.

However, it is difficult, if not impossible, to sort out how much of this premium is for elements of control, and how much is for synergies between the seller and the buyer. Therefore, the levels of value chart (Exhibit 15–1) is schematic. That is, although it contains dollar values and percentages, they are only illustrative of how to apply the concepts.

Elements of Control

Control shares are normally more valuable than minority shares because they contain a bundle of rights that minority shares do not enjoy. The following is a partial list of some of the rights that go with control shares that minority shares do not have:

1. Appoint or change operational management.
2. Appoint or change members of the board of directors.
3. Determine management compensation and perquisites.
4. Set operational and strategic policy and change the course of the business.
5. Acquire, lease, or liquidate business assets, including plant, property, and equipment.
6. Select suppliers, vendors, and subcontractors with whom to do business and award contracts.
7. Negotiate and consummate mergers and acquisitions.
8. Liquidate, dissolve, sell out, or recapitalize the company.
9. Sell or acquire Treasury shares.
10. Register the company's equity securities for an initial or secondary public offering.
11. Register the company's debt securities for an initial or secondary public offering.
12. Declare and pay cash and/or stock dividends.
13. Change the articles of incorporation or bylaws.
14. Set one's own compensation (and perquisites) and the compensation (and perquisites) of related-party employees.
15. Select joint venturers and enter into joint venture and partnership agreements.
16. Decide what products and/or services to offer and how to price those products/services.
17. Decide what markets and locations to serve, to enter into, and to discontinue serving.
18. Decide which customer categories to market to and which not to market to.
19. Enter into inbound and outbound license or sharing agreements regarding intellectual properties.
20. Block any or all of the above actions.

Control or Lack of Control Covers a Spectrum

Control or minority is not a black and white concept with a bright dividing line. Control, or lack of it, covers a broad spectrum. Therefore, in some instances,

it is more appropriate to use the phrase “discount for lack of control” rather than “minority discount.” Even some blocks of control shares may lack absolute control, and even some minority shares may enjoy some elements of control.

The following is a partial listing of possible scenarios:

100 percent control. From the standpoint of estimating a control premium, this purely 100 percent scenario is the ultimate.

More than a majority or supermajority, but less than 100 percent. Most acquirers prefer to get 100 percent of the stock. One or a few minority stockholders could be a nuisance.

More than 50 percent but less than a supermajority, where state statutes or articles of incorporation require a supermajority. About half the states have statutes that require a supermajority (usually two-thirds) to effect certain corporate actions, such as a merger or liquidation. Some companies’ articles of incorporation also require a supermajority for certain corporate actions.

50 percent. This is neither control nor minority. It is not enough to take actions, but is enough to block actions. In many cases, this leads to deadlock.

Less than 50 percent but “effective control.” Where one stockholder has close to 50 percent and the balance of the shares are widely distributed, the plurality owner usually has effective control over operations.

Minority shares that control by a voting block. Some companies have both voting and nonvoting classes of shares. When a holder has a majority of the voting shares, no matter how small the block, that holder has control. Empirical evidence is presented later in the chapter regarding the value of that control.

How the Standard of Value Affects the Control Premium

The applicable standard of value can often determine, or at least impact, whether a control premium is applicable.

Fair Market Value

If starting with a control value, one would not normally add a control premium, because that would be redundant, that is, double counting the value of control.

If starting with a marketable minority interest value, one needs to make a choice. Publicly traded shares are, by definition, minority interests. However, according to the Nath hypothesis, they represent control values.¹ Otherwise, he says, there would be more takeovers in the public markets.

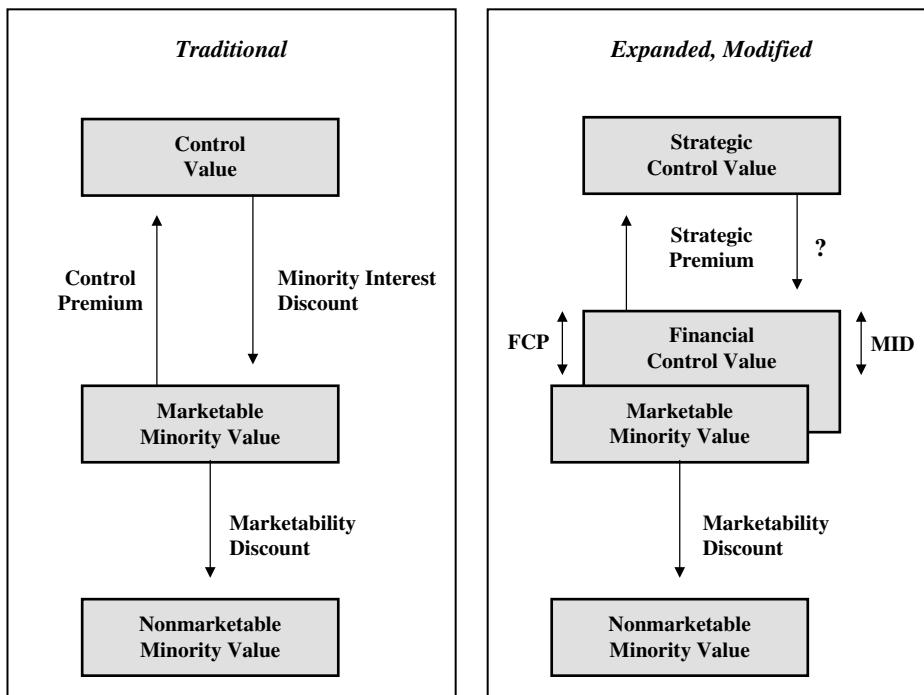
But there are some takeovers in the public markets, about 85% of which are at premiums to the previous public trading price. Empirical evidence on this is presented in a later section of this chapter.

Can evidence from the takeovers be used to estimate a control premium when reaching an opinion as to fair market value for control shares? Exhibit 15–1 shows a line above the control value line representing acquisition or synergistic value. Exhibit 15–2 is a schematic in which Chris Mercer raises the question, “which value is fair market value for 100 percent?”

¹ Eric W. Nath, “Control Premiums and Minority Interest Discounts in Private Companies.” *Business Valuation Review*, September 1994, pp. 107–12.

Exhibit 15–2

Which Value Is Fair Market Value for 100 Percent?



SOURCE: Z. Christopher Mercer, "Understanding and Quantifying Control Premiums: The Value of Control vs. Synergies of Strategic Advantages, Part II," *The Journal of Business Valuation* (Proceedings of the Fourth Joint Business Valuation Conference of The Canadian Institute of Chartered Business Valuators and the American Society of Appraisers, September 24 and 25, 1998). Toronto: The Canadian Institute of Chartered Business Valuators, 1999, p. 51.

In the U.S. Treasury definition, fair market value is defined as "the most probable price," and the buyer as a "hypothetical buyer" rather than any particular buyer. Consequently, the Tax Court has generally interpreted this to mean the value excluding synergy with a particular buyer. However, in an industry undergoing consolidation, where there is a pool of potential synergistic buyers, the multiples drawn from acquisition prices, including whatever synergies there may be, have been used to estimate fair market value.

In Canada, on the other hand, the definition of fair market value includes the phrase "the *highest* price" (emphasis supplied), and the appraiser is expected to seek out synergistic buyers, if any, and to include the value of synergies in fair market value.

Fair Value

In the context of dissenters' rights and minority oppression, discussed in detail in Chapters 35 and 36, the trend among courts is to interpret the fair value standard as a proportionate share of the enterprise value, without any discount for lack of control, even though the shares at issue usually are minority shares. For example, when starting with a publicly traded equivalent value, the Delaware Court of Chancery consistently adds a control premium. The case law varies from state to

state, however, and the analyst should study the most recent relevant case law in the state in which the case is being tried.

Fair Value for Financial Reporting

As discussed more thoroughly in Chapters 2 and 39, fair value for financial reporting, although not yet totally settled, generally resembles fair market value.

Investment Value

Investment value, the value to some *particular* owner or potential owner, is found most often in the contexts of mergers and acquisitions and in family law disputes.

As noted earlier, some states and some companies have “coattail provisions,” which mean that if a buyer buys the control shares, that buyer must offer the same amount for the minority shares. In a situation like that, the analyst must make a judgment as to the likelihood of a takeover in describing whether a control premium is applicable and, if so, how much. However, there are many cases in which control shares are bought and either no offer is made for the minority shares or a lower price per share is offered to the minority shareholders.

In the context of marital dissolutions, the practice varies widely, and the analyst must study the relevant case law very carefully. In some cases, a control premium may be applied if the holder is an officer or director of the company. In other cases, a control premium may be applied because of “family attribution” (other members of the family own the controlling shares), a practice specifically prohibited under the fair market value standard since Revenue Ruling 93-12.

Market Evidence Regarding Control and Acquisition Premiums

As noted earlier, there is a great deal of evidence regarding acquisition premiums, but there is no evidence to indicate what part of the premium paid is for synergies and what part is merely for the elements of control.

There are two convenient and inexpensive sources of control premium data: the *Mergerstat Review* and the *Mergerstat/Shannon Pratt's Control Premium Study*. As noted earlier, premiums and discounts are meaningless until the base to which they are applied is specifically identified. The only publicly available base from which to apply control premiums is stock market prices. Therefore, both sets of control premium data relate acquisition prices of public companies to their previous public trading prices. As the names of the two sources imply, they are compiled from the same data by Factset Mergerstat, but are presented differently, and contain very little overlap.

The Mergerstat Review

The *Mergerstat Review* has been printed annually in hardcover format since 1981. It publishes a wide variety of statistics on acquisition activity in the United States and abroad.

- (B) A statement of the asset's value, a statement of the methods used in estimating that value, and the reasons for the valuation in light of those methods;
- (C) A full description of the asset being valued;
- (D) The factors taken into account in making the valuation, including any restrictions, understandings, agreements, or obligations limiting the use or disposition of the property;
- (E) The purpose for which that valuation was made;
- (F) The relevance or significance accorded to the valuation methods taken into account;
- (G) The effective date of the valuation; and
- (H) In cases where a valuation report has been prepared, the signature of the person or firm making the valuation and the date the report was signed.³

Valuation Approaches and Methods

The three generally accepted approaches to valuation are the income approach (Chapters 9 and 10), the market approach (Chapters 11 and 12), and the asset-based approach (Chapters 13 and 14). In addition, the ESOP appraisal also includes a detailed qualitative and quantitative analysis of the subject ESOP company. While all of the three approaches may be used to value shares of company stock held by an ESOP, the asset-based approach is used less often than the other two approaches (and mainly for holding or investment companies).

ESOP-Specific Adjustments

ESOP Contributions

A normalized benefit expense should be determined taking into consideration any other existing retirement plan expenses. One practice is to add back the employer corporation ESOP contributions in estimating the normalized earnings of the business, if the contributions are in excess of normal retirement plan benefits. However, if ESOP contributions represent compensation in lieu of wages or benefits, or are expected to remain in place over an indefinite period of time, contribution expenses should not be added back in arriving at normalized earnings. If the ESOP is replacing another plan but at a higher level, the analyst also should make the adjustment for normalized employee benefit costs discussed below.

Normalized Employee Benefit Costs

If the company did not have an ESOP, the sponsoring company would probably consider another employee benefit plan. Or, the ESOP may be replacing another employee benefit plan for a period of time. Thus, the appraiser needs to assess the

³ Ibid.

normalized level of employee benefit costs and subtract this as an expense from normalized earnings. Historical practices in the subject ESOP company are good indications of the market level of benefits expected by the employees.

This adjustment in combination with the ESOP contribution adjustment discussed previously basically adjusts the ESOP company's normalized earnings as the willing buyer would if they did not intend to continue the ESOP. Since ESOPs are specific buyers, the willing buyer test would require that the analyst make this assumption.

Compensation Adjustments

Analysts sometimes consider an adjustment for excess compensation if some members of management are earning amounts in excess of the market level of compensation. In an ESOP valuation, these adjustments are only appropriate if the compensation policies will be changed to reflect the reduced level of compensation. Even if excess compensation is being paid, if the higher level of compensation is expected to continue, the ESOP valuation should reflect the ongoing compensation practices.

ESOP Compensation Adjustment

Under American Institute of Certified Public Accountants Statement of Position (SOP) 93-6, defined and discussed in the section of this chapter on ESOP Accounting Standards, the audited income statement contains a recording of compensation expense associated with the ESOP at fair market value. This compensation expense is not cash compensation and should not be reflected as such. The true economics of the cash transactions indicate that the appreciation in the value of the shares held by the ESOP trust is actually earnings of the plan. Thus, when valuing ESOP stock, most analysts adjust for the fair market value component of the ESOP compensation expense in determining the normalized earnings of the company.

Control Premiums

Valuation practitioners generally agree that the basis for the ESOP valuation will differ depending on whether or not the block of stock subject to the valuation carries elements of control. Generally, a buyer of a controlling ownership interest will pay more for the stock, as discussed in Chapter 15.

In some control ESOP transactions, no changes are expected to enhance cash flows. Although, technically, a control premium may be applied to these transactions, the application of a control premium may not be prudent. Even though interim cash flows may not reflect enhanced cash flows, the ESOP, as a control shareholder, could sell the company and receive a control price. Most analysts take the position that the ESOP should be able to pay whatever a hypothetical third-party buyer would pay for the block of stock being purchased, including control.

The following are some factors, among others, to consider when estimating the appropriate control premium, if any, to apply in ESOP valuations:

1. The elements of control inherent in the particular block of stock
2. The degree of control—effective, operating, and absolute

3. The aggregate interest purchased or held by the ESOP regardless of whether the sellers constituted minority or controlling interests
4. The potential for control, such as binding agreements with other shareholders that result in the passing of control to the ESOP
5. The effects related to the distribution of stock ownership
6. Any empirical evidence of control premiums actually paid in similar transactions
7. Any value enhancements that may result from the passing of control (e.g., effective use of leverage, elimination of excess compensation paid to selling shareholders, sale of undervalued assets)
8. Any value enhancement due to a put right
9. The rights and obligations under the employer corporation's articles of incorporation and state law
10. Whether the company's articles of incorporation or state law provides for cumulative voting
11. Contractual restrictions under the company's debt agreements or employment contracts
12. Effects of regulations, including state statutes (i.e., what constitutes majority for voting purposes)
13. The current financial condition and policies of the company

If the ESOP purchases control over a period of time instead of in one transaction, the issue of whether a control premium applies becomes more complex. Evidence in the public marketplace generally suggests that control premiums are paid along the entire spectrum of creeping control, although at different levels. Consistency among ESOP valuations from year to year is essential for the fair treatment and nondiscrimination of employee participants. Thus, if a control premium has been applied in past ESOP valuations, there is a tendency among analysts to continue this practice.

Discount for Lack of Marketability

There is still continuing controversy surrounding the extent to which a lack of marketability discount should be applied in ESOP valuations. Marketability is the ability of the stock to be sold and turned into cash quickly. On the one end of the marketability spectrum, there are relatively few potential buyers for shares in most closely held companies (especially of noncontrolling ownership interests). On the other end of the spectrum, shares in publicly traded corporations have almost instant marketability on an organized exchange and high liquidity, since the seller can receive cash within three business days.

Put Option and Repurchase Liability

The economic factor that generally distinguishes ESOP shares in closely held corporations is that a "put option" is required to be attached to the ESOP shares. Without this put option, employees could be forced to hold employer securities for extended periods of time. The put option requires the employer to provide the needed liquidity by repurchasing the distributed employer securities. This employer obligation to purchase shares is referred to generally as the repurchase obligation.

Under Code Section 409(h)(1)(B), employer securities that are acquired by an ESOP after December 31, 1979, must be subject to a put option if the securities are not readily tradable on an organized market at the time of the distributions to employee participants.

Employer corporation securities acquired with the proceeds of an ESOP loan after September 30, 1976, must also be subject to a put option, if the shares are not readily tradable on distribution. For employer securities not subject to these mandatory put option requirements, the company may provide a voluntary put option.

The DOL's proposed regulations guide the analyst to consider (1) the extent to which the put rights are enforceable and (2) the company's ability to meet its obligation. Most ESOP valuation practitioners "interpret the ESOP put right as substantially mitigating, if not eliminating, any marketability discount that would otherwise apply."⁴

The principal economic factors that influence the discount for lack of marketability with regard to ESOP employer securities are as follows:

1. The provisions of the ESOP plan documents, including the put rights
2. The financial strength and solvency of the employer corporation
3. The size of the share block owned by the ESOP
4. The degree of liquidity in the ESOP trust and the company
5. The extra borrowing capacity of the employer corporation
6. The repurchase liability and the expected funding requirements
7. The extent to which the company has planned and managed the repurchase liability
8. Past practices in repurchases by the company
9. The form and timing of payments to selling shareholders and ESOP lenders
10. The overall priority of acknowledged and contingent claims that may conflict with achieving liquidity for plan participants over time

The ESOP company can best plan for the repurchase liability by setting corporation policies regarding how repurchases will be handled. These policies will aid the analyst in assessing the lack of marketability discount. The repurchase liability is discussed in greater detail later in this chapter.

Current Controversies

The *Eyler* case (discussed in Chapter 33) and others have created a resurgence of the lack of marketability discount issue in ESOPs. The general trend is an attempt by the IRS to significantly increase the lack of marketability discount applied in ESOP transactions to reduce deductions from taxable income available to the ESOP company. The bases for these opinions are not entirely justified. First of all, *Eyler* was a fact pattern that included violations of ESOP valuation and fiduciary guidelines. The marketability issue was a minor issue that was not even technically debated. The judge merely commented on marketability as an issue in the opinion.

In addition, in order to justify such a position, the analyst has to assume that the DOL misunderstood the definition of fair market value when drafting the language relating to lack of marketability discounts in the adequate consideration regulations. The other erroneous assumption needed is that the true economics of the

⁴ J. Michael Julius, "ESOP Appraisals and Non-ESOP Shareholders," *CPA Litigation Service Counselor*, July 1998, p. 9.

put option should not be considered because it is not a right that is attached to the security. The put right is, however, a statutory right under the Code. The ESOP does not sell this right but most noncontrolling investors negotiate some buyout provision when the investment decision is made.

Despite all the debate over substantial lack of marketability discounts for ESOP transactions, the typical practice remains that these discounts should be between 0 and 20 percent. However, due to the recent controversies, many ESOP fiduciaries are taking the position that some discount should be applied to protect from protracted litigation.

Posttransaction Value in Leveraged ESOPs

After the ESOP purchases employer securities, the company has a significant demand on cash flow for debt repayments. Unless the sponsoring company receives substantial future cost or tax savings, the fair market value of the ESOP shares immediately after the transaction is reduced. This reduction in value is directly attributable to the reduction in cash flow available to the common equity as a result of the company's obligation to amortize the ESOP debt.

The tax shield created by the ESOP debt mitigates the reduction in value. This ESOP tax shield can be quantified by computing the present value of the tax savings over the period of the ESOP Loan. The present value of the ESOP tax shield would then be added back to equity value. It is important to note that, if the ESOP Loan and Bank Loan payments are not congruous, the present value of the tax shield is coincident with payments made on the ESOP Loan—not the Bank Loan. Payments on the ESOP Loan trigger the deductibility of principal payments.

If the value of the company does not change over the period the ESOP Loan is amortized, this reduction in value is recovered. However, it is important to note that the valuation impact is tied to the Bank Loan—not the ESOP Loan. It is the company's obligation to outside lenders that triggers the effect on common equity value.

Legislative and Regulatory Issues in ESOPs

The valuation practitioner conducting ESOP valuations needs to have a general understanding of the legislative and regulatory issues that impact ESOPs. The following is a general discussion of some of the legislated rules regarding ESOPs. These legal aspects of ESOPs are complex and further discussions with qualified ERISA counsel are necessary before implementing an ESOP.

Section 1042 Rollover

Code Section 1042 generally provides that, if certain requirements are met, no gain will be recognized by the selling shareholder upon the sale to an ESOP. The requirements of this tax deferral include:

- Immediately after the sale to the ESOP, the ESOP must own at least 30 percent of the voting stock of the business or 30 percent of the value of the business.